Application No.: 10/722,341 Docket No.: 102314-0157

AMENDMENTS TO THE DRAWINGS

The attached sheets of drawings include changes to FIG. 1. Previously omitted element 13 is added to FIG. 1.

Attachments: 1 replacement sheet for FIG. 1

1 annotated sheet showing the changes to FIG. 1

REMARKS

This reply is in response to the Office Action, dated March 25, 2005, rejecting claims 1, 2, and 4-10 and asserting that the specification is not fully enabling. However, the action indicates that claims 3 and 11-35 would be allowable assuming the enablement issue is overcome. The amendments above and remarks that follow address the points raised in the Office Action and thereby place all pending claims application in condition for allowance.

Claims 3 and 11-35 are Allowable

Claim 3 is amended to include the features of its base claim, claim 2. Claims 4-6 are amended to depend on claim 3. As discussed below, the specification is fully enabling as to all these claims, as well as to claims 11-35. Accordingly, these claims should be allowed.

Amendment of the Title

The title of the invention is amended and is now more clearly indicative of the claimed invention.

Claim Rejections under 35 U.S.C. § 112, first paragraph

Claims 3 and 11-35 stand rejected under 35 U.S.C. § 112, first paragraph. The Examiner contends that the feature of these claims regarding the downloading of programs and data to a control subsystem (as in claim 3) or a first control device (as in claims 11, 16, and 21) is not enabled by the specification. Applicants respectfully disagree.

Claim 3, by way of example, recites *inter alia* that a computing device downloads programs and data to a control subsystem. Capability for downloading programs or data is fully described in the specification. For example, on page 6, lines 17-22, the Applicants state:

> The main random-access memory 26, which may consist of one or more conventional DRAM (dynamic random-access memory) chips, provides storage for programs and data which may be down-loaded by the area controller 11 to enable the field controller 12(f) to operate, data received from the controlled devices and sensors controlled by the field controller 12(f), information processed by the central processor unit 24, and status information which may be retained for transmission to the area controller.

In view of these teachings, as well as the others presented in this application, it would have been readily apparent to those of ordinary skill in the art how to construct and operate a computing device or workstation according to the invention and, specifically, to provide capability for downloading between, for example, a computing device and a control subsystem as in claim 3.

The Examiner also rejects claim 27, contending that there is no support for a first control device coupled to a network in the specification. Again, the Application respectfully disagrees. The specification makes quite clear that the control devices of the invention can be connected by a network. Support can be found, for example, on page 5, lines 6-9, which states as follows:

> In the illustrative embodiment depicted in FIG. 1, the distributed control system 10 includes an area controller 11 and one or more field controllers 12(1) through 12p) (generally identified by reference numeral 12(f)), which may be conveniently interconnected by a network 13 or other communications arrangement.

Support is also provided in FIG. 1, which shows the components of control system 10 connected by network 13.

For these reasons, among others, the § 112, first paragraph, rejection of claims 3 and 11-35 should be withdrawn.

Claim Rejections under 35 U.S.C. § 102

Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Broedner et al., U.S. Patent No. 5,812,796. That claim is canceled without prejudice.

Claims 2, 6-7, and 10 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Dorfe et al., U.S. Patent No. 5,204,669.

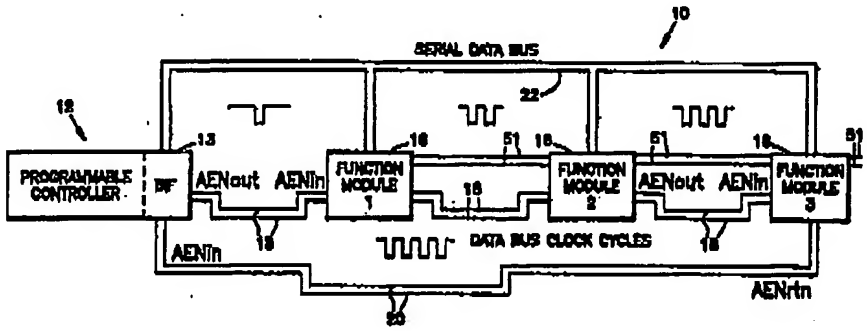
Claim 2 is directed to a control system which comprising a plurality of field devices, at least a selected one of which provides a second control function within the control system, including controlling one or more devices. The system further comprises a computing device

which provides a first control function within the control system, where the first control function includes controlling at least the selected field device. The computing device includes a control subsystem which comprises a bus and plurality of modules that are coupled to the bus and which each comprise a housing. At least a first module of the control subsystem comprises a controller; at least a second module interfaces one or more of the field devices; and at least a third module interfaces to the field device that provides the second control function.

Dorfe purports to teach a system for dynamically assigning addresses to a plurality of function modules. The function modules communicate with a programmable controller, which assigns the addresses, over a data bus.

At the outset, it is debatable whether the dynamic addressing of the programmable controller in Dorfe is controlling the function modules. Consequentially, it is debatable whether Dorfe teaches a field device providing a second control function for controlling one or more devices, or a computing device providing a first control function for controlling such a field device.

Even assuming, for the sake of argument, that Dorfe's dynamic addressing constitutes "control," there is no mention of a further level of control beyond the function modules. For example, FIG. 1 of Dorfe shows the programmable controller 12 and the function modules 16, however neither the programmable controller nor the function modules controls anything else.



Hence, Dorfe does not teach or suggest a first control device controlling a field device, where the field device provides a second control function within the control system, where the second control function includes controlling one or more devices, as recited in claim 2.

For the reasons above, among others, Dorfe fails to teach or suggest the subject matter of claim 2.

Similarly, claim 7 is directed to, among other things, a control system which comprises a first control device, a second control device, and a third control device. The first control device is configured to control the second control device, while the second control device controls the third control device.

The arguments above apply with equal force to establish that claim 7 is patentable over the reference.

Therefore, for the reasons above, among others, Dorfe fails to teach or suggest the subject matter of claim 7. Claim 10 depends from claim 7 and, likewise, is patentable over the reference.

Claim Rejections under 35 U.S.C. § 103

Claims 4-5 and 8-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dorfe in view of McNutt, U.S. Patent No. 5,802,389.

Claims 4-5 now depend from claim 3, an allowable claim. Claims 8-9 depend from claim 7, and hence incorporate the features of claim 7. As discussed above, Dorfe fails to teach salient features of claim 7, and consequently, those of claims 8-9.

McNutt fails to remedy the deficiencies of Dorfe, specifically that McNutt does not teach or suggest a system with layers of control as discussed above, e.g., where a computing device controls at least one field device which further controls one or more devices.

Therefore, the combination of Dorfe and McNutt do not render claims 8-9 unpatentable.

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Conclusion

In view of the above amendments and remarks, Applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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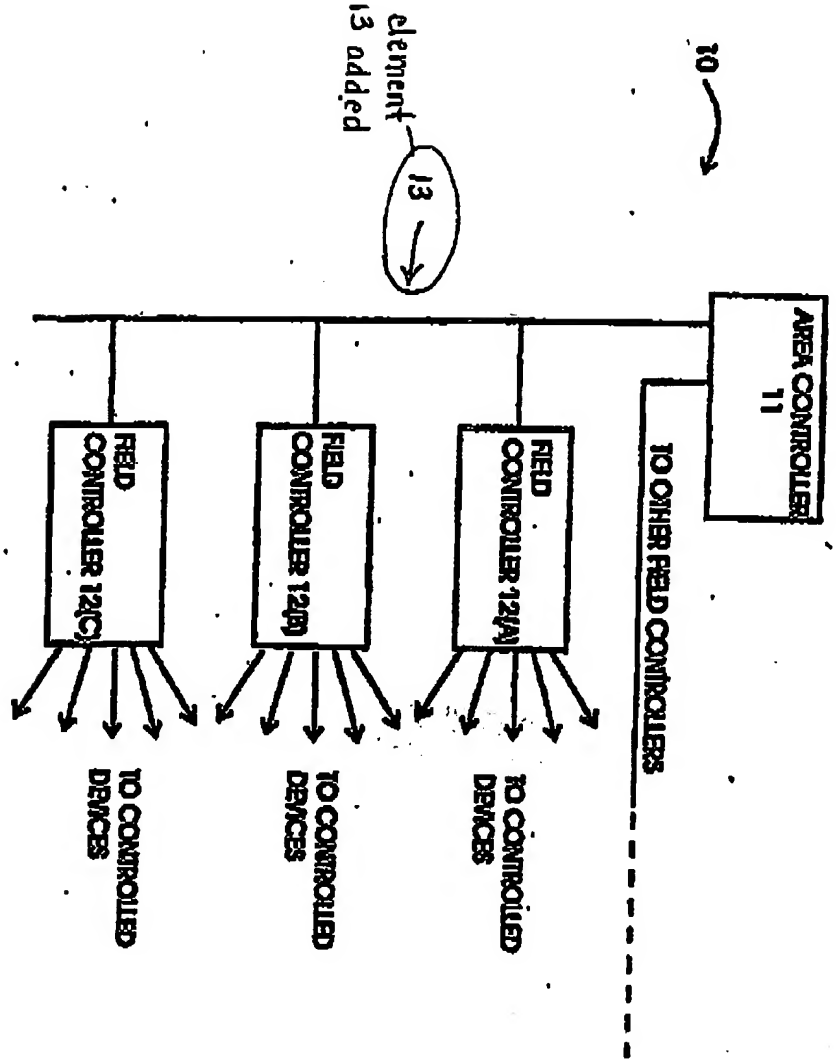
element
13 added
13
10
AREA CONTROLLER
11
TO OTHER FIELD CONTROLLERS
FIELD
CONTROLLER 12(C)
FIELD
CONTROLLER 12(B)
FIELD
CONTROLLER 12(A)
TO CONTROLLED
DEVICES
TO CONTROLLED
DEVICES
TO CONTROLLED
DEVICES

FIG. 1